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CLAIMS

1. A distillation unit including:
a container for receiving a first liquid wherein the liquid is evaporated to form a liquid vapour, the container having an upwardly facing opening defined by a
5 peripheral edge;
a heat exchanger for engaging the edge and extending across at least substantially all the opening, the exchanger having a downwardly facing condensation surface both for condensing the liquid vapour that contacts that surface and for directing the condensate inwardly from the edge to a collection zone; and
10 a collector being disposed within the container for receiving the condensate.
2. A unit according to claim 1 wherein the condensation surface is inclined inwardly from at least some of the edge.
3. A unit according to claim 2 wherein the condensation surface is inclined inwardly from substantially all of the edge and terminates at the collection zone.
- 15 4. A unit according to claim 3 wherein the collection zone is centrally disposed and the condensation surface is conical.
5. A unit according to claim 1 wherein the downwardly facing condensation surface is inclined with respect to the horizontal by between 10° and 50°.
6. A unit according to claim 1 wherein the condensation surface is inclined with
20 respect to the horizontal by between 15° and 35°.
7. A unit according to claim 6 wherein the condensation surface is inclined with respect to the horizontal by between 20° and 30°.
8. A unit according to claim 1 wherein the exchanger engages with the edge to substantially seal the opening.
- 25 9. A unit according to claim 1 wherein the collection zone is centrally disposed with respect to the condensation surface.
10. A unit according to claim 1 wherein the heat exchanger includes an exchanger body having an outer surface of which at least a portion defines the collection surface and an inner surface for engaging with a heat exchanging fluid.
- 30 11. A unit according to claim 1 wherein the container includes a container base, and at least one container sidewall extending upwardly from the container base and terminating in the edge, and wherein the collector includes a collector base, and at least one collector sidewall extending upwardly from the collector base for defining

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the collector opening.

12. A unit according to claim 11 wherein the collector base is spaced apart from the container base.

13. A unit according to claim 1 wherein the collector includes a collector opening
5 through which the condensate enters the collector.

14. A unit according to claim 1 wherein the collector includes a collector body having a lid in which the collector opening is formed.

15. A unit according to claim 1 wherein the collector includes a filter for filtering the condensate that enters the collector.

10 16. A unit according to claim 1 wherein the collector, in use, retains at least about 0.5 litres of condensate.

17. A unit according to claim 1 wherein the first liquid is metered into the container.

18. A unit according to claim 17 wherein the container includes a valve for
15 metering the first liquid into the container, wherein the valve connects the container with a source of the liquid.

19. A unit according to claim 18 wherein the valve is a float valve that is responsive to the level of the first liquid within the container for metering the first fluid.

20 20. A distillation unit including:

a base unit having a base, at least one sidewall extending upwardly from the base and a top for collectively defining a storage space;

a container disposed on or above the top for receiving a first liquid that is evaporated to form a liquid vapour;

25 a first heat exchanger having:

(a) a condensation surface both for condensing the liquid vapour that contacts that surface and for directing the condensate to a collection zone; and

(b) a cavity for containing a heat exchange medium that draws heat from the
30 condensation surface;

a collector being disposed within the container for receiving the condensate;

an outlet that extends from the collector for allowing the condensate to progress from the container; and

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a second heat exchanger disposed within the storage space for cooling the heat exchange medium.

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